

Can a living fossil learn new tricks? Meet the nautilus!

With poor eyesight, the chambered nautilus hunts by smell. Explore how a blue-light experiment revealed mysteries of the cephalopod's memory.

Have you ever heard the expression, “You can’t teach an old dog new tricks”? Well, researchers at Brooklyn College, CUNY Graduate Center, decided to try to teach an old species of cephalopod new tricks by testing the chambered nautilus’s memory.

Cephalopods, such as octopuses, squid, and cuttlefish, are fascinating marine creatures. One of them, the ancient chambered nautilus, was swimming the oceans before dinosaurs existed, and this species is still around today in the Indo-Pacific Ocean, living at depths ranging from 300 to 2,000 feet. Often referred to as a “living fossil,” nautilus have remained remarkably unchanged for 500 million years, but their really, really old brains are very capable of learning new things.

Learn more and watch the video at:

<https://www.sciencefriday.com/educational-resources/chambered-nautilus-memory/>

Think Big!

1. The chambered nautilus is currently on the endangered species list due to overfishing for its beautiful shells, which are used in jewelry and art. How would you raise awareness about the overfishing of the chambered nautilus? How could you persuade people to protect this animal?
2. In the article, you learned that chambered nautilus live 300–2,000 feet below the surface of the ocean. Given the depth at which it lives, why might the chambered nautilus have limited eyesight?
3. The researchers found that the chambered nautilus responded to blue light, like the light found in its deep-sea habitat. Do you think other animals might respond strongly to colors in their environment? What are some examples?